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The information in the USAPHC Ebola brochure has been updated and can be downloaded from the Health Information Products eCatalog.

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Arthritis among veterans — United States, 2011–2013
7 November - Arthritis is among the most common chronic conditions among veterans and is more prevalent among veterans than nonveterans. Contemporary population-based estimates of arthritis prevalence among veterans are needed because previous population-based studies predate the Persian Gulf War were small, or studied men only despite the fact that women comprise an increasing proportion of military personnel and typically have a higher prevalence of arthritis than men. ... [CDC] found that one in four veterans reported that they had arthritis (25.6%) and that prevalence was higher among veterans than nonveterans across most sociodemographic categories, including sex (prevalence among male and female veterans was 25.0% and 31.3%, respectively). State-specific, age-standardized arthritis prevalence among veterans ranged from 18.8% in Hawaii to 32.7% in West Virginia. Morbidity and Mortality Weekly Report

October 2014 - Chronic insomnia is a common clinical complaint and its incidence in both U.S. military and civilian populations has increased. ... During 1998–2013, there were 205,740 incident cases of chronic insomnia among active component service members with an overall rate of 90.3 per 10,000 person-years. Individuals in the chronic insomnia cohort were at higher risk for type II diabetes (adjusted hazard ratio [HR], 2.17 [95% CI, 1.75–2.69]) and hypertension (adjusted HR, 2.00 [95% CI, 1.85–2.16]). Sleep hygiene education along with evaluation and treatment of persistent symptoms are of public health importance in active duty service members. Medical Surveillance Monthly Report

Seats would deliver shock-free, safer ride in vehicles and helos
2 November - The Office of Naval Research is developing a new seat suspension system that can help protect Marines riding in ground vehicles or flying in helicopters. The suspension system prevents some of the impact from mines or improvised explosive devices from moving through the seat and into the passenger, effectively lessening the force of the blast that reaches the body. Additionally, it reduces the intensity of vibrations passengers in ground vehicles and helicopters feel through their seat, allowing for a more comfortable ride. The military has used this type of suspension system in the past, but it was calibrated for men of average weight. The new devices automatically adjust to fit passengers ranging from 140 to 365 pounds. This includes the lightest 5 percent of women and the heaviest 5 percent of men, fully dressed in gear and personal protective equipment. Marine Corps Times
GLOBAL

A hidden risk

4 November - ... A new study conducted by S. Allen Counter, clinical professor of neurology and director of the Harvard Foundation, shows that high levels of lead, as well as other toxic metals such as mercury and cadmium, can pass from mother to child through breast milk ... “Lead is really the tip of the iceberg,” Counter said. “We also found elements like cadmium and mercury in breast milk. And more and more we’re finding that even in some cities in America, the levels of those elements are fairly high. I think this finding is a signal. It’s a warning to mothers that even in this country, even if there may not be evidence of lead in mother’s milk, that there are other elements that are equally if not more dangerous, and this may be something we should test for.” Harvard Gazette

Citing good trial results, Sanofi to seek approval for dengue vaccine

4 November - Sanofi Pasteur announced yesterday it will seek approval of its dengue virus vaccine in a number of dengue-plagued countries, following completion of a large phase 3 trial that showed overall vaccine efficacy of about 61%. The results of the trial, involving close to 21,000 children in Brazil, Colombia, Mexico, Honduras, and Puerto Rico, were published yesterday by the New England Journal of Medicine. It was the second and larger of two phase 3 trials the company has conducted. Sanofi’s vaccine is the furthest developed of several experimental dengue vaccines. CIDRAP News Scan (first item)

Could breathing differently change how people climb mountains?

31 October - A brief new report claims that using a breathing technique based on Tibetan Buddhist tradition, 26 inexperienced mountain climbers made it up Mt. Kilimanjaro in Africa in 48 hours while avoiding acute mountain sickness... For the new experiment, which was reported in a letter to the editor in Wilderness & Environmental Medicine, the climbers received special training in advance, including mindset coaching, cold exposure, and breathing technique practice. They were trained to intentionally hyperventilate while climbing, including regular 30-minute breathing sessions, using the “Wim Hof” method, inspired by Tummo meditation. “During the exercises, periods of strong hyperventilation were alternated with short periods of breath retention,” Buijze said. The method of hyperventilation can improve endurance and enhance perceived energy levels as well as generate more body heat during cold exposure, the authors write. The Kilimanjaro ascent usually takes four to seven days even for experienced climbers, they say, and 24 of their group of 26 nonathletes – some of whom also had diagnoses like multiple sclerosis, rheumatoid arthritis or cancer – reached the summit (at 5,895 meters, or 19,341 feet, above sea level) in 48 hours. Reuters
Melinda Gates backs contraception for healthier, wealthier future

3 November - Giving the millions of women who need it contraception and pregnancy advice will help avoid illness, disadvantage and poverty for current and future generations, Melinda Gates said on Monday. The co-founder of the Bill & Melinda Gates Foundation told Reuters she is encouraged by progress in the past two years in putting family planning at the center of woman and child health programs, but says more needs to be done to ensure all women can choose freely whether and when to have children... Gates... spearheaded an international summit in London in 2012 aimed at making access to birth control a central part of health and development aid projects in developing countries. Reuters

Microrockets fueled by water neutralize chemical and biological warfare agents

3 November - With fears growing over chemical and biological weapons falling into the wrong hands, scientists are developing microrockets to fight back against these dangerous agents. Scientists point out that titanium dioxide is one of the most promising materials available for degrading chemical and biological warfare agents. It does not require harsh chemicals or result in toxic by-products. There is no way, however, actively to mix titanium dioxide in waterways, so scientists have been working on ways to propel titanium dioxide around to accelerate the decontamination process without the need for active stirring. Homeland Security News Wire

Plant protein could be used for blood, say scientists

5 November - A protein found in sugar beet could be used as a blood substitute to help tackle the shortage of blood, researchers in Sweden suggest. Haemoglobin is the protein that carries oxygen in blood and the team say plant and human versions are very similar. They are looking at whether they can repackage the plant protein in a way that can be accepted by human tissue. Scientists said this could be in three years. One UK expert said the study was "exciting" but a "long-term prospect." BBC News

Researchers in Oregon identify autism-risk genes

31 October - Researchers in Oregon say they have identified 27 genes that may cause autism, according to a study published this week in the journal Nature. The research at Oregon Health and Science University has the potential to create a screening tool for parents of autistic children, by helping them to determine if future offspring are likely also to develop the disorder, said co-author Brian O’Roak, assistant professor of molecular and medical genetics at OHSU’s medical school. The genes identified by O’Roak’s team are the result of mutations not inherited from either parent, and they appear to contribute to about one in four male autism diagnoses and just under half of all female diagnoses, he said on Friday... These 27 genes do not appear to cause autism in everyone with the mutation, O’Roak said, cautioning against the use of the research in pre-natal screening. Reuters
**EBOLA VIRUS DISEASE**

Americans strongly back quarantine for returning Ebola health workers

3 November - Nearly 75 percent of Americans surveyed in a Reuters/Ipsos poll believe medics returning to the United States after treating people with Ebola should be quarantined, and 80 percent believe the healthcare workers’ movements should be controlled. The findings show broad support for the type of controversial new screening rules announced by the governors of New York and New Jersey… A quarter of poll respondents thought quarantines were unnecessary for healthcare workers, and about one in six respondents thought such workers should neither monitor their health themselves nor be actively monitored by officials… Nearly 82 percent of respondents thought any travelers who have recently been in Guinea, Sierra Leone or Liberia should be actively monitored by officials, and 85 percent thought this should apply to returning medics. Reuters

Ebola cases seen declining in Liberia, WHO says in new update

5 November - There are currently 13,042 confirmed or suspected cases of the deadly Ebola virus in six countries, according to the World Health Organization. But the group says its latest figures also hold some good news, as the number of Ebola cases in hard-hit Liberia appear to be on the decline. WHO released its data for the period up to Nov. 2 Wednesday, saying that Ebola has now been blamed for 4,818 reported deaths. The group said that the weekly incidence of Ebola seems to be stable in Guinea, rising in Sierra Leone, and declining in Liberia. NPR

Ebola surging in Sierra Leone amid lack of treatment centers: U.N.

6 November - The number of Ebola cases is surging in Sierra Leone as the country suffers from a lack of treatment centers, while lack of food and basic goods is forcing some people to leave quarantine areas, the United Nations said. The U.N. Mission for Ebola Emergency Response (UNMEER) said in its weekly report that a total of 1,062 people had died in Sierra Leone from the virus, with the outbreak particularly virulent in the western areas around the coastal capital Freetown. … Sierra Leone has 288 beds spread across four Ebola Treatment Centres (ETCs) treating 196 confirmed cases of the disease as of Nov. 2. UNMEER said. However, the U.N. mission said it suspects an average of 50 percent of cases of the Ebola virus disease (EVD) are not being reported across Sierra Leone. Reuters
Ebola virus disease in West Africa — Clinical manifestations and management

5 November - In resource-limited areas, isolation of the sick from the population at large has been the cornerstone of control of Ebola virus disease (EVD) since the virus was discovered in 1976. Although this strategy by itself may be effective in controlling small outbreaks in remote settings, it has offered little hope to infected people and their families in the absence of medical care. In the current West African outbreak, infection control and clinical management efforts are necessarily being implemented on a larger scale than in any previous outbreak, and it is therefore appropriate to reassess traditional efforts at disease management. Having cared for more than 700 patients with EVD between August 23 and October 4, 2014, in the largest Ebola treatment unit in Monrovia, Liberia, we believe that our cumulative clinical observations support a rational approach to EVD management in resource-limited settings. New England Journal of Medicine

Ebola virus disease – Mali

31 October - On 23 October 2014, WHO was notified by Mali’s Ministry of Health of a laboratory-confirmed case of infection with Ebola Virus Disease (EVD). This is the first EVD case in Mali. The case is a 2-year-old female who developed symptoms, presumably on 19 October 2014, while in Beuila, Guinea and then travelled across by road to Mali. On 20 October 2014, the patient was admitted to a healthcare facility in Kayes, Mali. On 21 October 2014, she was referred to the Fousseyni Daou Hospital in Kayes. On 22 October 2014, samples for EVD were taken and analysed at the Center for TB and AIDS Research in Mali. Samples came back positive for EVD. Confirmation of test results is being carried out at the Centers for Disease Control and Prevention (CDC) in Atlanta and at Institute Pasteur de Dakar Senegal. The case died on 24 October 2014. To date, 85 contacts have been identified and are under follow-up. WHO

Exclusive: U.S. Ebola researchers plead for access to virus samples

5 November - Scientists across the United States say they cannot obtain samples of Ebola, complicating efforts to understand how the virus is mutating and develop new drugs, vaccines and diagnostics. The problems reflect growing caution by regulators and transport companies about handling Ebola as well as the limited resources of West African countries which are struggling to help thousands of infected citizens. ... Ebola mutates as it spreads, and while few expect it to acquire the ability to transmit through air, for instance, scientists require a constant supply of fresh samples to track these changes. The samples hold up is not likely to delay the development of experimental treatments. But if the virus undergoes significant changes that go undetected, the drugs and tests might not work, researchers said. Reuters
Facebook launches Ebola charity donation button

6 November - Facebook Inc said users would now have option to donate directly to various Ebola relief charities through a button at the top of their News Feeds. Facebook users can donate to three charities - International Medical Corps, the International Federation of Red Cross and Red Crescent Societies, and Save the Children - starting today, the company said on its website on Thursday. The social media company is also donating 100 terminals to provide internet and voice-calling access for aid workers to Ebola-hit areas such as Guinea, Liberia and Sierra Leone. Reuters

FDA, industry officials vow to minimize barriers to Ebola vaccines

5 November - US government and pharmaceutical industry officials pledged today to minimize regulatory and cost barriers to providing Ebola vaccines for West Africa, while the World Health Organization (WHO) said African regulatory officials are working on plans to speed approvals of clinical trials and licensing of Ebola drugs and vaccines. In addition, an executive with GlaxoSmithKline (GSK), maker of one of the leading Ebola vaccine candidates, said the company aims to begin clinical efficacy trials of its vaccine in January, if not sooner, which is roughly in line with previous assessments from the WHO. CIDRAP

From blue bleach to hazmat hacks, students take on Ebola challenges

5 November - ... The U.S. Agency for International Development announced a $5 million Grand Challenge in October, signaling the urgency to develop better protective gear for health workers in West Africa. Recognizing that grads and undergrads are in the perfect position to come up with clever ideas, some of America's most prominent universities have organized their own design challenges and emergency hackathons to get students' brains churning. ... [Dr. Harshad] Sanghvi helped organize a weekend hackathon two weeks ago at Hopkins in Baltimore, where a team of engineering students and textile experts are working on making the gowns look friendlier. Something as simple as adding name tags to the suits and developing a face protector that shows more of the face — to increase eye contact — can make a difference, he says. ... [Another] team is tackling the same problem with a variety of colorfully patterned aprons that can be worn over anti-Ebola suits. ... Another Columbia group thought of using color-changing bleach to help health workers confirm that they've fully disinfected every part of their suits. Still another developed a lightweight cot that workers can use as a stretcher to transport patients and can double as a bed. NPR

Obama seeks billions for Ebola battle as cases keep piling up

5 November - The Obama administration today asked Congress for $6.18 billion in emergency funds this fiscal year to fight Ebola in West Africa and the United States, as
African health ministers elected a new World Health Organization (WHO) regional leader, a position key to the outbreak response that recently came under sharp criticism. President Barack Obama's request comes a day after the midterm elections, as well as an Ebola briefing yesterday with cabinet members and other top officials involved in the US response. In an update on the epidemic today, the WHO said Ebola activity is still persistent and widespread in all three of the hardest-hit countries, calling the situation in Sierra Leone "very concerning," with intense transmission in the capital, Freetown, and a handful of the country's western districts. CIDRAP

**Pentagon civilians leaving Ebola zones may choose monitoring regimen**

31 October - Civilian U.S. defense employees returning from Ebola relief work in West Africa must undergo monitoring to ensure they are free of disease but can choose between following civil health guidelines or the stricter military regimen, the Pentagon said on Friday. The decision followed an impassioned political and scientific debate in the United States about the most appropriate and safe precautions for returning medical and other workers who have been helping to contain the Ebola outbreak at its source… Rear Admiral John Kirby, the Pentagon press secretary, said the Defense Department could not legally force civilian employees to follow the monitoring program approved for uniformed personnel this week but said they could voluntarily choose that option if they wanted. Reuters

**U.N.'s Ban warns against quarantining Ebola health workers**

3 November - U.N. Secretary-General Ban Ki-moon warned on Monday against "unnecessarily" strict restrictions on the movement of health workers who have been fighting the deadly Ebola virus in West Africa... "The best way to stop this virus is to stop the virus at its source rather than limiting, restricting the movement of people or trade," Ban told a news conference in Vienna. "Particularly when there are some unnecessarily extra restrictions and discriminations against health workers." ... Major international airlines and shipping service lines should continue normal trade, movement and transportation, he said. Reuters

**U.S. scientists say uncertainties loom about Ebola's transmission, other key facts**

4 November - Even as government officials express confidence that researchers know the key facts about Ebola, many questions crucial to preventing an outbreak in the United States remain unanswered, scientists told a workshop at the National Academy's Institute of Medicine in Washington on Monday. Virtually all the unknowns have practical consequences, participants emphasized, making it foolish and perhaps dangerous to base policy on weak science. For instance, virologists believe that Ebola is spread when people come in contact with the virus-laden bodily fluids of those who are already sick and then
touch their eyes, nose or mouth, allowing the virus to pass through mucous membranes and enter the bloodstream. But penetration through intact skin has not been definitively ruled out, said hemorrhagic-fever expert Thomas Ksarek of the University of Texas Medical Branch (UTMB), who co-led a session on Ebola's transmission routes. "Does bleach or hand sanitizer," which people in West Africa are using to protect themselves from Ebola, "make the skin more susceptible" to being penetrated by the virus?, Peters wondered. "It's a question that has to be asked." MSN News

West African Ebola epidemic

5 November - ... Beyond the death and suffering caused by the disease, the crisis could have lasting development consequences in the region, where many countries are still recovering from years of conflict and instability. Guinea, Sierra Leone and Liberia are projected to lose $1.17 billion in lost GDP due to Ebola. The agricultural sector accounts for 57% of Sierra Leone's GDP and 37% of Liberia's. Disruptions during the growing season have resulted in the inflation of the price of key food crops. In Liberia, the price of a highly nutritious and standard food staple, cassava, has increased by 150%. While individual livelihoods have shrunk due to lost wages, unemployment, and lost productivity, rising hunger fueled by soaring costs of basic necessities are exacerbating the ongoing crisis. Economic growth has been affected as emerging sectors such as tourism, agriculture and private sector investment are reduced, and development programmes may have to be postponed or interrupted in affected areas. At the same time, measures such as border containment, quarantine, airport screening, and appropriate protection for medical personnel could cost the governments of the region hundreds of millions of dollars from already stretched budgets. United Nations Development Programme

WHO asks Canada to justify Ebola-related travel restrictions

4 November - The World Health Organization (WHO) is demanding that Canada justify its recent decision to restrict travel from the West African countries hit hard by Ebola, the Canadian Press reported today. The Canadian government announced Oct 31 it would not issue any new travel visas to residents or citizens of countries with widespread and persistent Ebola transmission, and the government also stopped the processing of permanent residency visas for people from those countries, the story noted. The actions contravened the International Health Regulations (IHR), which stipulate that in infectious disease outbreaks, countries should not impose trade or travel sanctions against affected countries that are beyond what the WHO has recommended, the story explained. Under the IHR, countries that take stronger measures must provide an explanation for doing so. CIDRAP

WHO updates Ebola PPE guidance for health providers

31 October - Based on an expedited review, the World Health Organization (WHO) today updated it guidance for personal protective equipment (PPE) for use in treating suspected
and confirmed Ebola infections, which prioritizes protecting mucosal areas and hand hygiene. The guidance updates the WHO’s recommendations from August and comes from a group of 13 international experts convened in early October. ... The experts agreed that the most important factor was protecting the mucosa (eyes, nose, and mouth) from droplets and fluids that contain the Ebola virus. ... The team found no scientific evidence comparing the effectiveness of face shields and goggles and said either could be used, based on preference and availability. ... For respiratory protection, the team recommends waterproof masks that don't collapse against the mouth, such as a "duckbill" design, for regular treatment and fluid-resistant (surgical) particulate respirators for use during aerosol-generating procedures. This differs from CDC guidance, which calls for N95 respirators or powered air-purifying respirators for all patient care. ... All health workers should wear double gloves, preferable nitrile ones that resist chemicals, when caring for patients with Ebola and other filovirus infections. Other essential elements for protecting health workers include face cover, protective footwear, gowns or coveralls, and head covering that protects the neck, according to the guidance. CIDRAP

Another H7N9 case in China brings total to at least 441

3 November - A woman in China's Jiangsu province has H7N9 avian flu and is hospitalized in critical care, Hong Kong’s Department of Health (DH) reported today. The 58-year-old woman had bought a chicken at a market and slaughtered it prior to having symptoms, the agency said in a news release. Reports of H7N9 avian flu in humans began in February 2013. To date there have been 441 cases in mainland China, 57 of them in Jiangsu province, according to the DH. CIDRAP Flu Scan (first item)

Armed Forces Health Surveillance Center: DoD Influenza Surveillance Summary

For Week 43:
- In NORTHCOM, influenza activity overall is low and at or below baseline levels for service members
- In EUCOM, among service members, influenza activity is minimal and below baseline
- In PACOM, Influenza activity is minimal and below baseline in service members
- In CENTCOM and AFRICOM, Influenza activity is minimal, but slightly above baseline in week 43 for service members
- In SOUTHCOM, among local nationals influenza activity is low. AFHSC DoD Seasonal Influenza Surveillance Summary
CDC: Weekly Influenza Surveillance Report

During week 43 (October 19-25, 2014), influenza activity was low in the United States.

- **Viral Surveillance:** Of 7,449 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 43, 320 (4.3%) were positive for influenza.

- **Pneumonia and Influenza Mortality:** The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.

- **Influenza-associated Pediatric Deaths:** No influenza-associated pediatric deaths were reported.

- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 1.4%, which is below the national baseline of 2.0%. [FluView](#)

Flu News Europe

Week 43/2014

- In the fourth week of the season, influenza activity across the WHO European Region remained low with indication of sporadic activity in 10 countries.

- Clinical primary care data were reported by 36 countries, all of which reported low intensity and nine reported sporadic geographic spread. Five countries reported increasing trends, the same as in the previous week.

- Twenty-nine countries tested 429 sentinel specimens, with five specimens (1%) reported positive by four countries. Two were subtyped as influenza A(H3N2); one as influenza A(H1N1) and two as influenza B unsubtyped.

- One country reported a laboratory-confirmed influenza case that was admitted to an intensive care unit.

Season

- Influenza activity in the European Region is typically low at this time of year and there is no indication that the influenza season has started in the Region.

- No indications of increased mortality due to influenza have been reported through the European monitoring of excess mortality for public health action (EuroMOMO – [http://www.euromomo.eu](http://www.euromomo.eu)). [Flu News Europe](#)

Naval Health Research Center: Febrile Respiratory Illness Surveillance Update

For Week 44 (through 1 November 2014):

- Influenza: No new cases of NHRC laboratory-confirmed influenza among US military basic trainees.
• FRI surveillance at all eight U.S. military basic training centers indicated FRI rates were at or below expected values.

• NHRC has capability to test for novel H7N9 influenza virus, MERS coronavirus, enterovirus EV-68, and Ebola virus. NHRC Febrile Respiratory Illness Surveillance Update

Study finds globally disparate flu vaccine dose distribution

3 November - A survey of influenza vaccine dose distribution in 157 countries found that many regions fall below World Health Assembly goals for vaccine coverage, according to a Nov 12 study in *Vaccine*. ... The total number of doses distributed globally increased from 262 million to 489 million from 2004 to 2011—an increase of 86.9% in distribution. Flu vaccine distribution from 2008 to 2011, however, increased only 12.1%. The World Health Organization (WHO) Americas region received the highest number of doses, while Africa had the lowest vaccine distribution, the study said. The United States had the highest per capita distribution of flu vaccine, with 477 doses per 1,000 people. Haiti had the lowest per capita distribution, with 0.69 doses per 1,000 people. CIDRAP Flu Scan (second item)

USAPHC: U.S. Army Influenza Activity Report

For the week ending 25 October 2014 (Week 43), WRMC reported the most influenza A cases (8) during week 43. However, influenza-like illness (ILI) activity remains low in both Army and civilian populations.

• ILI Activity: Army incident ILI outpatient visits in week 43 were 11% lower than for the same week last year.

• Influenza cases: No hospitalized influenza cases were reported to USAPHC through DRSi in week 43. To date, no cases have been reported during this influenza season.

• Viral specimens: During week 43, 76 of 584 (13%) laboratory specimens tested positive for respiratory pathogens; 16 of 475 (3.4%) specimens tested for influenza A were positive. WRMC reported the most cases (50%), followed by SRMC (31%), NRMC (13%), and PRMC (6%). RSV accounted for 42% of positive specimens. USAPHC U.S. Army Influenza Activity Report

WHO Influenza Update

3 November - Globally, influenza activity was low, with the exception of some Pacific Islands.

• In North America, influenza activity began to increase slightly but remained low.

• In Europe overall influenza activity remained at inter-seasonal levels.

• In tropical countries of the Americas, influenza detections decreased with respiratory syncytial virus (RSV) causing most influenza-like illness (ILI) and severe acute respiratory infections (SARI).

• In Africa, eastern and, western Asia, influenza activity was low.
• In tropical Asia, influenza activity continued to decrease or remained low with influenza B predominant in India and Viet Nam.

• In the southern hemisphere, influenza activity reached inter-seasonal levels except in several Pacific Islands where ILI activity remained high.

• Based on FluNet reporting (as of 31 October 2014 08:20 UTC), during weeks 41 to 42 (5 October 2014 to 18 October 2014), National Influenza Centres (NICs) and other national influenza laboratories from 43 countries, areas or territories reported data. The WHO GISRS laboratories tested more than 31 820 specimens. 1318 were positive for influenza viruses, of which 778 (59%) were typed as influenza A and 540 (41%) as influenza B. Of the sub-typed influenza A viruses, 46 (11%) were influenza A(H1N1)pdm09 and 374 (89%) were influenza A(H3N2). Of the characterized B viruses, 28 (100%) belonged to the B-Yamagata lineage and 0 (0%) to the B-Victoria lineage. WHO

VETERINARY/FOOD SAFETY

Environmental, public health groups sue FDA over feed additive

6 November - A group of environmental and public health groups sued the U.S. Food and Drug Administration on Thursday, seeking to set aside the agency’s approvals for feed additives containing ractopamine that are used to boost the weight of cattle and pigs. ... Used for more than a decade in the U.S. agriculture industry to build lean muscle instead of fat, ractopamine, a beta-agonist, has been barred by some major meat importers around the globe, including China. ... The agency did not adequately assess the impact of ractopamine on food safety, the environment, animal welfare and farm workers, the complaints allege. ... The complaints also allege that hogs fed ractopamine can exhibit increased concentrations of stress hormones, which research has found to increase the presence of bacteria that can lead to food-borne illness, including E.coli and Salmonella. Reuters

FDA links Listeria infections to Miami-based cheese producer

31 October - Listeria found in soft cheese produced by Oasis Brands, Inc., was found to match a strain that sickened three people in 2013 and 2014, according to an Oct 29 Centers for Disease Control and Prevention (CDC) report. An FDA investigation identified Listeria monocytogenes in environmental samples at Oasis Brands' Miami-based processing location. The strain was linked to three cases of listeriosis in patients who had eaten soft Mexican cheeses sold under Oasis' Lacteos Santa Martha brand, the report said. CIDRAP News Scan (third item)
Military veterinary facilities suspend most surgeries for pets

4 November - Military veterinary clinics around the world are scaling back the services they offer for privately owned pets in an effort to save money. U.S. Army Public Health Command, which oversees veterinary treatment facilities at all military installations, temporarily suspended in mid-October almost all procedures involving anesthetics for privately owned animals at most of its approximately 150 locations, said Lt. Col. Matt Takara, the command’s program manager for animal medicine. Veterinary facilities will still perform emergency procedures for pets and will continue to operate on military animals, Takara said. The suspension comes as a result of the command hiring more civilian personnel and needing to reduce overhead, Takara said. Despite charging for surgeries, he said, the suspension will save the command money since the military charged less than the cost of the procedures. Takara also said the level of care the military provides for procedures made charging more impractical as military prices would not be competitive with civilian clinics prices. Takara said they also have raised prices on other services: The cost of examinations increased $10 to $35, and the price of some items sold by the clinics rose slightly. Stars and Stripes

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WELLNESS

A field of medicine that wants to know where you live

3 November - ... Working at a small clinic in South Central Los Angeles, [Dr. Rishi] Manchanda worked with GIS researchers to geocode 54,000 patient records based on their home addresses. The researchers overlaid maps of people with asthma or diabetes on maps of public housing data such as housing code violations. The maps showed hot spots where the two collided. Asthma was more likely to show up in houses that were known to be infested with mold. Diabetes popped up in neighborhoods that had a lack of access to healthful foods and farmers’ markets. The Affordable Care Act, Manchanda says, has helped hospitals think about issues like geomedicine by mandating that clinics complete community health needs assessments that describe the community they serve. And he says the data can help health workers in local clinics take better preventive measures for patients. NPR
ACP offers new guidelines for preventing recurrent nephrolithiasis

4 November - The American College of Physicians has issued a new set of recommendations to prevent recurrent kidney stones. Published in the *Annals of Internal Medicine*, the guidelines recommend the following:

- Patients with a history of nephrolithiasis should be encouraged to increase their fluid intake, with a goal of producing at least 2 liters of urine a day.
- In patients with active disease in whom higher fluid intake is not sufficient, treatment with a thiazide diuretic, citrate, or allopurinol is recommended.
- Patients should also be encouraged to avoid colas, which are acidified with phosphoric acid. The recommendation does not apply to fruit-flavored soft drinks, which are often acidified with citric acid. *NEJM Journal Watch*

Armor for batteries could protect hungry kids from harm

3 November - ... In 2013, the National Capital Poison Center reported over 3,000 cases of ingested batteries, with over 2,000 of those occurring in children less than 6 years old. While the majority of batteries don't cause serious damage, the button-sized nubs can get stuck in the esophagus, leaving tissue burns, tearing the lining and even causing death. ... Now, researchers from the Massachusetts Institute of Technology, Harvard Medical School and the Harvard Stem Cell Institute have created a shield that pastes directly onto the negative terminal of the battery. The results of their experiments published Monday in the *Proceedings of the National Academy of Sciences* show that a prototype shield is effective at keeping small, 11 millimeter batteries from damaging the esophagus after being swallowed. *NPR*

Health tip: Find purpose in life

3 November - ... In research published today in the journal *Proceedings of the National Academy of Sciences*, [Eric Kim, a doctoral candidate examining the intersection of social connection and physical health at the University of Michigan] and colleagues found that people with greater senses of purpose in life were more likely to embrace preventive healthcare: things like mammograms, prostate exams, colonoscopies, and flu shots. In the study, people rated their own sense of purpose on a multidimensional questionnaire that included incisive prompts like, "I sometimes feel I’ve done all there is to do in my life" and "I enjoy making plans for the future and working to make them a reality." Even after the researchers accounted for socioeconomic factors that predict a person's likelihood of getting preventive care, people with purpose in their lives were clearly more engaged in their own health. *The Atlantic*
Home health workers struggle for better pay and health insurance

3 November - ... Home care workers are mostly women. More than half are women of color, and 1 in 5 are single mothers. A recent analysis by the Brookings Institution found that while the ranks of home health workers grew exponentially over the past decade, their earnings dropped when accounting for inflation, says Martha Ross a researcher at Brookings... Under the Affordable Care Act, there are financial incentives for hospitals and doctors to keep patients healthy. Ross says home care workers should be considered – and compensated – as vital front-line personnel in reaching the new goals. And the U.S. Labor Department says more than a million new home care workers will be needed in the next decade. Kaiser Health News

Increasing hand washing compliance with a simple visual cue

October 2014 - We tested the efficacy of a simple, visual cue to increase hand washing with soap and water. Automated towel dispensers in 8 public bathrooms were set to present a towel either with or without activation by users. We set the 2 modes to operate alternately for 10 weeks. Wireless sensors were used to record entry into bathrooms. Towel and soap consumption rates were checked weekly. There were 97 351 hand-washing opportunities across all restrooms. Towel use was 22.6% higher ($P = .05$) and soap use was 13.3% higher ($P = .003$) when the dispenser presented the towel without user activation than when activation was required. Results showed that a visual cue can increase hand-washing compliance in public facilities. American Journal of Public Health

Sleep apnea tied to memory problems

31 October - The ability to remember locations and directions may suffer when deep sleep is disrupted by breathing difficulties, a new study suggests. People with sleep apnea tended to score worse on spatial memory tests after sleeping without their breathing aid, compared to mornings after they'd used their breathing aids at night, researchers found... "Spatial memory" helps people remember how to get to their children's schools, or where they left their keys, for example... The researchers can't say whether the worse performance is directly from the disruptions in sleep caused by the apnea, or whether it's the lack of oxygen the condition causes. Reuters

The bad air in our gyms

5 November - ... [For] the new study, which will appear next month in the journal Building and Environment, researchers at the University of Lisbon in Portugal and the Technical University of Delft in Holland decided that they would place air-quality monitoring equipment in gyms throughout Lisbon. ... Their findings were disquieting. In general, the gyms showed high levels of airborne dust, formaldehyde and carbon dioxide. The concentrations of these substances generally exceeded most accepted standards for indoor
air quality. (No government agency in the United States formally monitors air quality in gyms.) The levels were especially high during evening aerobics classes, when many people were packed into small studios, stirring up dust and fumes and puffing heavily, producing carbon dioxide with every breath. ... In sufficient concentrations, these substances can contribute to asthma and other respiratory problems, she said. Almost all of the gyms in the study had levels of these substances that significantly exceed European standards for healthy indoor air standards. New York Times

Zambia: Severe environmental contamination and elevated blood lead levels among children — 2014

7 November - ... Kabwe, the second largest city in Zambia with a population of approximately 203,000, is located in Zambia’s Copperbelt. During 1904–1994, lead mining and smelting operations contaminated the soil in residential areas, but no extensive environmental health assessment was completed. ... During July 22–28, 2014, a team from PureEarth/Blacksmith Institute, the City University of New York School of Public Health, and Green Cross Switzerland conducted extensive surface soil testing and blood lead testing of children in six communities adjacent to the now-closed Kabwe mines and smelters. ... The highest results in soil were found in neighborhoods directly adjacent to the abandoned smelters. Of the 339 soil tests, 86 readings (25.4%) were above the U.S. Environmental Protection Agency lead in soil guidance value of 400 mg/kg (3), and 98% were above the Zambia guideline of 200 mg/kg. ... In addition to soil testing, 196 children aged 2–8 years living within these communities were tested for blood lead. ... The mean blood lead level (BLL) was 48.3 micrograms per deciliter (µg/dL) of whole blood. The lowest BLL measured was 13.6 µg/dL. The upper BLL of detection by the testing system is 65.0 µg/dL; 52 (26.5%) readings exceeded that limit. The upper value for the CDC reference range for BLLs in children is 5 µg/dL (2). CDC recommends that lead chelation therapy be considered when a child has a BLL ≥45 µg/dL. Morbidity and Mortality Weekly Report

Qatar: Middle East respiratory syndrome coronavirus (MERS-CoV)

31 October - On 12 and 23 October 2014, WHO was notified by the National IHR Focal Point of Qatar of 2 cases of Middle East respiratory syndrome coronavirus (MERS-CoV).
These are the first cases reported to WHO by Qatar in 2014. A 71-year-old male from Doha, Qatar developed symptoms on 1 October while traveling with three family members by car from Qatar to the Al-Hasa Region of Saudi Arabia. ... The patient has comorbidities and is currently in critical condition. WHO

**Saudi Arabia: Middle East respiratory syndrome coronavirus (MERS-CoV)**

3 November - Between 18 and 26 October 2014, the National IHR Focal Point of Saudi Arabia (KSA) notified WHO of 12 additional cases of Middle East respiratory syndrome coronavirus (MERS-CoV) infection, including five deaths. The cases are from Taif (6), Riyadh (4), Madinah (1) and Skaka (1) ... Globally, WHO has been notified of 897 laboratory-confirmed cases of infection with MERS-CoV, including at least 325 related deaths. WHO

**Yemen: H.I.V. patients face hospital evictions**

3 November - Patients infected with H.I.V. are being ordered out of hospitals in Yemen, even when they are in dire need of care, a human rights group says. Human Rights Watch, a nonprofit advocacy group, described a woman in labor and in need of a cesarean section being turned away from a private hospital. And it said a woman suffering from seizures was ordered out of a large public hospital by a doctor shouting in front of everyone in the emergency room that she had H.I.V. ... On Oct. 16, the organization wrote a letter to the Yemeni health minister, detailing the acts and calling them illegal. A 2009 Yemeni law mandates free health services to those with H.I.V. and criminalizes discrimination against them by health workers, Human Rights Watch said. New York Times

Big data meets AI: How the U.K.’s National Health Service uses analytics

5 November - The U.K.’s National Health Service is using cloud analytics software to pluck numerical and text data on health-care facilities from spreadsheets and databases and present it in plain English on its website, NHS Choices. ... The information will help England’s citizens learn more about 50,000 health care facilities and make a “more informed choice about their care,” said Cleveland Henry, delivery director, NHS Choices, in a press statement. ... NHS Choices is using Narrative Science Inc. software, called Quill, a cloud application running in Amazon Web Services. The software uses natural language generation techniques — a key element of artificial intelligence — to comb through structured data and automatically present it in story form, akin to the way a human would write a
document. Kris Hammond, Narrative Science co-founder and chief scientist, said the company uses proprietary algorithms to analyze data, discern what is important and generate reports — often in under a second. The software pairs well with visualization tools that support the narrative with graphical charts. Wall Street Journal

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U.S.: CDC reports 7 new EV-D68 cases

5 November - The Centers for Disease Control and Prevention (CDC) has reported seven new cases of enterovirus D68 (EV-D68) in the past 2 days, bringing the US total to 1,112 cases in 47 states and the District of Columbia. The agency added that EV-D68 has been detected in nine patients who died, but it has not determined whether the virus was responsible for those deaths. The number of deaths has not changed in recent days. Of the more than 2,000 specimens the CDC’s lab has tested, about 40% have tested positive for EV-D68, while about a third have tested positive for another enterovirus or a rhinovirus. The CDC has yet to update its state-by-state activity page this week, which still lists seven states reporting elevated EV-D68 activity. CIDRAP News Scan (second item)

U.S.: Colon cancer rates rising in young adults

5 November - Incidences of colorectal cancer have been decreasing by about 1 percent a year since the mid 1980s, but incidences among people under 50 — the recommended screening age — has been increasing sharply, and these younger patients are more likely to present with advanced disease. The study, published in JAMA Surgery, used a national database of 400,000 patients with colon or rectal cancer. Incidences decreased by about 1 percent a year overall but rose among people 20 to 34, with the largest increase — 1.8 percent a year — in disease that had already progressed to other organs. Incidence rates today, per 100,000 people, are 3 for ages 20 to 34; 17 for ages 35 to 49; and 300 for people over 50. But by 2030, the researchers estimate, one in 10 colon cancers and one in four rectal cancers will be in people under 50, and rates among those over 50 will be 175 per 100,000. New York Times

U.S.: Upgrading infrastructure could reduce future flood damage

31 October - From 1980 to 2007, about 90 percent of all global disasters were caused by flooding either by rain, tsunami, hurricane, or some other natural event. At the same time, the American Society of Civil Engineer’s 2013 Report Card for America’s Infrastructure gave the country a dismal D+. The group said $3.6 trillion was needed by 2020 to address the most serious problems. In Colorado, the report card says, 70 percent of major roads are
poor or mediocre and 566 bridges are structurally deficient. A new study argues that the severe flooding that devastated a wide swath of Colorado last year might have been less destructive if the bridges, roads, and other infrastructure had been upgraded or modernized. Homeland Security News Wire

U.S.: WHO recommends naloxone to prevent 20,000 overdose deaths in U.S.

4 November - More than 20,000 deaths might be prevented every year in the United States alone if naloxone, used to counter drug overdoses, was more widely available, the World Health Organization said on Tuesday. Few countries have such good data as the United States, but the WHO estimates about 69,000 people around the world die each year from overdoses of heroin or other opioids, with Iran, Russia and China known to have high numbers of opioid users. Naloxone, a generic drug, is used to counter overdoses of heroin and prescription opioids including hydrocodone, oxycodone, codeine and tramadol...

"We’re happy to recommend the intranasal approach as an effective approach," [WHO expert Nicolas] Clark said. "Naloxone is cheap but it’s limited really to emergency departments and some ambulance departments." Reuters

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Guangzhou turns to mosquito-eating fish to help control dengue outbreak

28 October - The southern Chinese city of Guangzhou has introduced a fish that eats mosquito larvae, in an effort to control its worst-ever dengue fever outbreak, state news media have reported. Mosquito fish, seen here in an aquarium in Virginia, are being deployed in the southern Chinese city of Guangzhou to help fight dengue fever. Some scientists have warned that use of the nonnative mosquito fish could have unexpected consequences, while others say that mosquito fish are already found in Guangdong waters and the environmental impact might not be significant, but that the effectiveness of the fish may also be limited. As of Monday, the number of dengue cases in Guangdong Province this year had reached 41,155, the local health authorities reported, with six deaths. The province has seen 200 to 300 new cases a day in recent days. New York Times
India: Short skirts, bad stars, chow mein - Why men in India rape women

30 October - The 2012 Delhi bus rape case and an ever-longer list of rapes and murders in India have prompted politicians and public figures in India to cite plenty of implausible reasons why rape happens and why men brutalise women or portray women in ways that suggest they had it coming. Many people, when speaking out, tend to minimise the crime or rationalise it in ways that sound ludicrous to many. We created this list of such comments more than a year ago, but it seems like it’s time to add some new entries... Uttar Pradesh police: Responding to a Right to Information (RTI) request regarding the rising incidents of sexual crimes against women in the state, the police cited reasons ranging from mobile phones and indecent clothing to lack of entertainment. Reuters

Sri Lanka: How disaster preparation broke down

4 November - Nearly one week after a central Sri Lankan village was hit by a deadly landslide on 29 October, officials are reviewing how dozens of injuries, at least six deaths and hundreds of displacements could have been avoided with better disaster preparedness. ... Only six days before the disaster, the government had carried out evacuation drills nationwide tailored to tsunami, flood and landslide risk. Simulations were carried out in two villages near Meeriyabedda (Boragas and Gavammna) identified by DMC as having similar landslide risk levels - but not in Meeriyabedda. ... After the landslide in Badulla District, experts are advocating that rigorous early warning and evacuation procedures – now more focused on tsunami threats - be adapted to landslide-prone areas in other parts of the island as well. IRIN

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Chikungunya outbreak case numbers edge closer toward 800,000

3 November - The chikungunya outbreak in the Caribbean and the Americas has added 4,481 suspected and confirmed cases this week, bringing the total to 793,563, according to an Oct 31 update from the Pan American Health Organization (PAHO). The largest increases came in Colombia, with 2,740 new suspected and confirmed cases, and Puerto Rico, with 1,534. Chile saw its first case. Confirmed cases, currently numbering 13,357, make up a small portion of the total cases. One new death from the disease occurred, in Puerto Rico, bringing the total fatal cases overall to 153. Martinique has had the most cases, with 74, and Guadeloupe has had 65. CIDRAP News Scan (first item)
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